

REMARKS

Claims 1-14 are pending in this application. Claims 8-14 were rejected under 35 USC §102(a) as being anticipated by Sezan, et al. (US Patent No. 6,236,395). Applicants respectfully disagree.

As amended, claim 8 requires that the filtering module "produce program-related information from said digital television broadcast service, wherein said program-related information includes key clips of audiovisual programs..." The Sezan reference does not show, teach nor describe inclusion of key clip information, as the term key clip is defined in applicants' specification. Key clips are not the same as key frames. See applicants' specification page 5, and Sezan, column 16, line 15-35. It can be seen that Sezan is a process for developing a descriptor based upon the user, the equipment or the program, while the instant application is directed to identification of key clips based upon the user preferences. Applicants submit that claim 8 is patentably distinguishable over the prior art and request allowance of this claim.

Claims 9-11 depend from claim 8 and should be ruled allowable for that reason and for their own merits. Claim 9 is directed to filtering within individual programs within a broadcast. Sezan is not directed to this type of filtering, but to providing a descriptor that may allow such filtering. The reference within Sezan cited by the Examiner discloses a knowledge based system used in creating a summary, not generating program related information of a broadcast that includes key clips, as claimed in claim 9. Similarly, Sezan does not disclose storing a database index of program-related information, as required by claim 10, but a means for storing and archiving entire programs. See column 9, lines 19-22. With regard to claim 11, applicants again submit that the Examiner misunderstands the application of key clips within the information transmitted from the digital television server to allow the receiver to produce key clips and summaries, rather than the descriptor scheme disclosed in the reference. Applicants submit that claims 9-11 are patentably distinguishable over the prior art and request allowance of these claims.

Claim 12 requires a "...a program map table operable to take said program-related information and produce a map of video references and times; a key clip extraction table operable to extract key clips from said audiovisual program..." Contrary to the Examiner's assertion, the key frame extraction module 76 is not the same as a key clip extraction module. In addition, no reference to any program map of video references derived from program-related information is taught, shown or suggested by Sezan. Applicants submit that claim 12 is patentably distinguishable over the prior art and request allowance of this claim.

Claims 13 and 14 depend from claim 12 and should be ruled allowable for that reason and for their own merits. Sezan does not show, teach nor suggest using user preferences in extracting key clips as is required in claim 13, as Sezan does not show extraction of key clips. Similarly, the program-related information may include web information, but Sezan does not show use of that information in extracting key clips, as is required by claim 14. Applicants submit that claims 13 and 14 are patentably distinguishable over the prior art and request allowance of these claims.

Claims 1-7 are rejected under 35 USC §103(a) as being unpatentable over Ramaswamy (US Patent No. 6,295,647) in further view of Sezan, et al. (US Patent No. 6,236,395). Applicants respectfully disagree.

As discussed by the Examiner on page 5 of the office action, Ramaswamy does not teach that the context editor is used to identify key clips of audiovisual information. The Examiner relies upon Sezan for this particular aspect. As discussed above with regard to claims 8-14, however, Sezan does not show teach or suggest identifying key clips at the digital television transmitter, nor a transmitter with this capability. Instead, Sezan sets forth a descriptor scheme that may enable such identification, but does not address the issue of providing this information in the context of a thin broadcast, where that information is used at the receiver. The combination of Sezan and Ramaswamy does not overcome the deficiencies of Sezan as a single reference. Therefore, applicants submit that claim 1 is patentably distinguishable over the prior art.

Claims 2-7 depend from claim 1 and should be ruled allowable for that reason and for their own merits. Claims 2, 3, 5, 6 and 7 all address further limitations as to variations on references of key clips, which is not shown, taught or suggested by Sezan, as is discussed above. Ramaswamy does not address this deficiency, and therefore applicants submit that these claims are patentably distinguishable over the prior art and request allowance of these claims.

As discussed with regard to claim 1, the combination does not show, teach nor suggest the applicants' invention as claimed in claim 1, much less the further limitation of the video reference generator as is claimed by claim 4. Applicants therefore submit that claim 4 is patentably distinguishable over the prior art and request allowance of this claim.

No new matter has been added by this amendment. Allowance of all claims is requested. Some amendments were made to claims 1 and 12 that were directed to formatting changes, not for reasons of patentability.

The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE**In the Specification**

Please delete the paragraph on page 14, line 5 and replace with the following paragraph:

-- The receiver 40 has an audiovisual program summarizer circuit 44, which receives the broadcast, demultiplexed, depacketized, and decoded data from the demultiplexer and decoders 42. The audiovisual program can be stored directly in short-term memory 46, if desired, and/or just the summary produced by the summarizer can be stored. The short-term memory 46 may be a computer hard disk. A [user] viewer 49 can then access the short-term memory via audiovisual user navigation interface 48 to select a program of interest, view its summary, and browse the audiovisual program itself, if desired, guided by the visual summary.--

In the Claims

1. A system for providing a digital television data broadcast service, comprising:
 - [a]) a data service authoring subsystem operable to provide key clip data in a defined format identifying key clips of an audiovisual program;
 - [b]) a data service encoder operable to receive said key clip data and program and system information data and finalize contents of said data broadcast service
 - [c]) a multiplexer operable to multiplex said contents of said data broadcast service with encoded audiovisual programs and produce a data transport stream.
8. A receiver operable to receive and operate upon a digital television data broadcast service, comprising:
 - [a]) a filter module operable to produce program-related information from said digital television broadcast service, wherein said program-related information includes [portions] key clips of audiovisual programs;
 - [b]) a navigation module operable to allow a user to browse said program-related information;
 - [c]) a summarizer operable to create summaries of said audiovisual programs.
12. A program summarizer operable to receive a data broadcast service for filtering and generating summaries of audiovisual programs, comprising:
 - [a]) a description extraction module operable to parse and extract an audiovisual program description provided by said data broadcast service;

[b]) a program and system information extraction module operable to extract the program and system information protocol (PSIP) information and MPEG-2 System Information from said data broadcast service;

[c]) an inference engine operable to combine said audiovisual program description with said PSIP information and any other available program information producing program-related information;

[d]) a program map table operable to take said program-related information and produce a map of video references and times;

[e]) a key clip extraction table operable to extract key clips from said audiovisual program; and

[f]) a summary module operable to produce summaries of said audiovisual program and provide it to a viewer.